

Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 7 of 13

REMARKS

Applicant's attorney thanks the Examiner for the privilege of the telephonic interview conducted on November 18, 2003. During the interview applicant's attorney outlined various differences between the claimed invention and the Ohta reference. This response is provided to detail certain ones of those differences for consideration by the Examiner. Applicant believes that in view of the amendments and remarks herein, the application is in a condition for allowance. Entry of the present amendment and allowance of the application are respectfully requested.

Claim Amendments

Independent claims 1 and 11 have been amended to more particularly point out that the claimed invention does not include power feed equipment on the landmass associated with the claimed electrical power connector. Support for this amendment may be found throughout the specification and drawings, e.g. in FIGS. 5-7, page 9, lines 18-23, page 10, lines 8-9, etc. No new matter has been added.

35 U.S.C. §102 Rejection

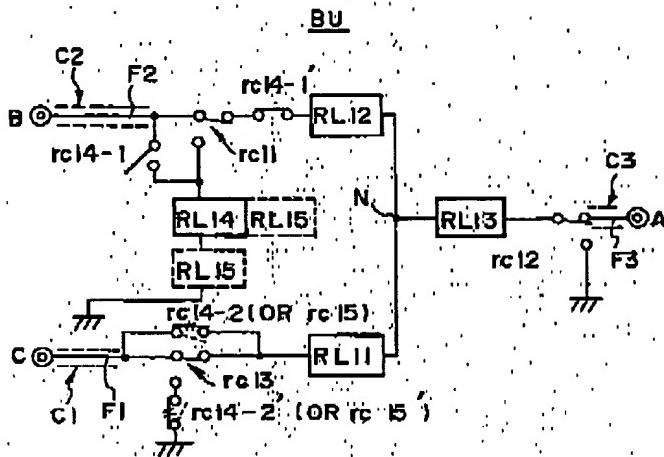
Claims 1, 4, 5, 6, 9, and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ohta et al. (U.S. Patent No. 5,644,466). Applicant respectfully traverses this rejection.

Ohta et al. teaches a configuration for a submarine cable branching unit. The branching unit is located in the sea for connecting optical cables emanating from cable landing stations and for feeding electric power to the repeaters in the cables. FIG. 1A, and Col. 1, lines 9-16. Three

Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 8 of 13

cable stations, i.e. stations A, B and C are linked at a node N in the submarine branching unit (BU). Figure 5 of Ohta is reproduced below.

FIG. 5



Ohta specifically states, with reference to FIG. 5, that each of the cable landing stations feeds electric power to the branching unit (BU):

"the first cable C1 includes a first feed branch P1 for feeding electric power from the first cable landing station C to submarine branching unit BU" (Col. 5, lines 47-49) (emphasis added);

"the second cable C2 includes a second feed branch F2 for feeding electric power from the second cable landing station B to submarine branching unit BU" (Col. 5, lines 53-56) (emphasis added); and

"the third cable C3 includes a third feed branch F3 for feeding electric power from the third cable landing station A to submarine branching unit BU" (Col. 5, lines 59-62) (emphasis added).

At Column 6, lines 52-58, Ohta describes the operation of the submarine branching unit:

In a normal operation mode, there is formed a bilateral power feed path between the stations A and C, such that an electric current is fed from the station A to the station C via the third and first feed branches F3 and F1. Further, there is established a unilateral path in which the electric current is supplied from the ground to the station B via the second feed branch F2. (emphasis added)

Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 9 of 13

The submarine branching unit of Ohta is thus not only a remote unit located under the sea, it specifically requires power feed from each landmass to which it is connected.

In complete contrast, independent claim 1 requires a configuration including a first cable for carrying data signals between "a first landmass and a second landmass", a second cable for carrying data signals between "the first landmass and a third landmass", and a connector "located on said first landmass" for connecting power conductors of the first and second cables "without power feed equipment coupled to said first or second cables on said first landmass". (emphasis added). This configuration advantageously eliminates the need for power feed equipment, e.g. at the first landmass. This is confirmed in the specification with at page 9, lines 18-21 respect to the exemplary embodiment of FIG. 5:

..[T]he devices of two cable segments 505a and 505b may be powered by a single pair of power feed equipment 507a and 507b, providing significant savings in installing and operating the communication system using these cable segments.

Applicant finds nothing in Ohta that teaches or suggests a system including a first cable for carrying data signals between "a first landmass and a second landmass", a second cable for carrying data signals between "the first landmass and a third landmass", and a connector "located at the first landmass" for connecting power conductors of the first and second cables "without power feed equipment coupled to said first or second cables on said first landmass", as required by independent claim 1. In fact, the branching unit (BU) in Ohta is clearly defined as being a submarine unit, and Ohta specifically discloses use of power feed equipment on all landmasses to which it is connected.

As the Examiner knows, "[a]nticipation can only be established by a single prior art reference which discloses each and every element of the claimed invention." Structural Rubber

Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 10 of 13

Products Company v. Park Rubber Company, 749F2d 707, 223 USPQ 1264 (Fed. Cir. 1984).

Further, “[a]bsence from a cited reference of any element of a claim of a patent negates anticipation of that claim by the reference.” Kloster Speed Steel AB v. Crucible Inc., 793F2d 1565, 230 USPQ 81 (Fed Cir. 1986), on rehearing, 231 USPQ 160 (Fed. Cir. 1986). Thus, if even a single element found in Applicant's claims is not identically and exactly disclosed in prior art relied upon by the Examiner, the Examiner's rejection of the claims, as amended, under 35 USC § 102(b) is improper.

There is nothing in Ohta that teaches or suggest a connector located on a landmass without power feed equipment, as required by independent claim 1. In fact, Ohta is clearly and unmistakably directed to an undersea branching unit for receiving power feed from all landmasses to which it is connected. As such, it teaches away from providing a connector on a landmass without power feed equipment on the landmass.

In view of the fact that Ohta is completely devoid of any teaching of a connector “located on said first landmass” for connecting power conductors of the first and second cables “without power feed equipment coupled to said first or second cables on said first landmass”, as specifically required by claim 1, Applicant respectfully submits that the rejection of claim 1 under 35 USC § 102(b) cannot stand.

Claims 4, 5, 6, 9 and 10 depend from claim 1. These claims are in condition for allowance by virtue of their dependency for the reasons adduced above, as well as for their own limitations. For example, claim 9 requires that the signal carrying lines of the first cable are “communicatively isolated” from the lines of the second cable. Claim 10 specifically requires that the signal carrying lines of the first cable “carry different signals” form the lines of the

Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 11 of 13

second cable. Ohta is completely devoid of any teaching or suggestion of "communicatively isolating" the data carrying lines of cables, as required by claim 9, or of different signals being carried on separate cables, as required by claim 10. As such, Applicant requests that the rejection of claims 1, 4, 5, 6, 9 and 10 under 35 U.S.C. § 102(b), as being anticipated by Ohta (U.S. Patent No. 5,644,466) be withdrawn upon reconsideration.

35 U.S.C. §103 Rejection

Claims 2, 3, 7, 8 and 11-15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohta in view of the prior art figures submitted by the applicant. Applicant respectfully traverses this rejection.

Independent claim 11, as amended, requires a "plurality of cable segments" that are electrically connected "in series" between a positive terminal of a first piece of power equipment on a "first landmass" and a negative terminal of a second piece of power feed equipment on a "second landmass" by at least one "electrical power connector located on at least one additional landmass", "wherein no power feed equipment is coupled to any of said plurality of cable segments on said at least one additional landmass."

There is nothing in Ohta that would have lead one skilled in the art to the claimed invention at the time it was made. As discussed above, Ohta teaches a submarine branching unit for protecting against power failure associated with a feed from a landing station. There is nothing in Ohta that suggests making an electrical connection using a connector "on at least one additional landmass", as claimed. Moreover, the claimed configuration results in reduction of the amount of power feed equipment and specifically requires that "no power feed

Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 12 of 13

equipment is coupled to any of said plurality of cable segments on said at least one additional landmass." This is the opposite of Ohta which specifically teaches that power feed equipment should provided on each landmass to which it is connected to provide current feed from the landmass to the branching unit.

Ohta thus fails to teach or suggest essential limitations of the claimed invention. Applicant's prior art figures do not provide the missing teachings.. As such, the claimed invention could not have been obvious from the Ohta combined with the applicant's prior art figures at the time it was made.

As the Examiner knows, three criteria must be met to establish a *prima facia* case of obviousness:

- (1) there must be some suggestion or motivation in the references to combine the reference teachings;
- (2) there must be some expectation of success; and
- (3) the combined references must teach or suggest all of the claimed limitations.

Id.; In re Dow Chemical Co., 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988). Ohta combined with the applicant's prior art figures provides neither a suggestion of the claimed invention or an expectation of success, and does not teach or suggest all of the claimed limitations. In fact, Ohta's teaching of a submarine unit coupling power feed equipment from all landmasses to which it is connected teaches away from the claimed invention which requires a land based power connector connecting cables without power feed equipment coupled to the cables on the landmass carrying the power connector.

Accordingly, it is respectfully submitted that the rejection of claims 11-15 under 35

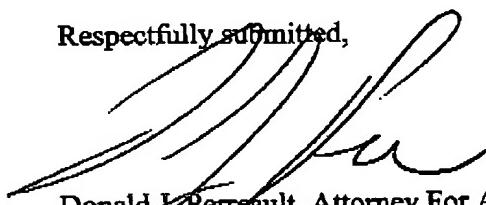
Amendment A
U.S.S.N 09/413,792
November 26, 2003
Page 13 of 13

U.S.C. § 103(a) as being unpatentable over Ohta in view of applicant's prior art figures should be withdrawn upon reconsideration. Claims 2, 3, 7 and 8 depend, either directly or ultimately, from independent claim 1 which is allowable over Ohta combined with applicant's prior art figures for the reasons adduced above, as well as for their own limitations. Claim 8, for example, requires a at least one data signal carrying line carrying "electrical data signals" and communicatively coupled to one or more data signal carrying lines of the first cable through a "converter." There is simply nothing in Ohta that teaches or suggests such a configuration. Accordingly, it is requested that the rejection of claims 2, 3, 7 and 8 under 35 U.S.C. §103(a) in view of Ohta and applicant's prior art figures also be withdrawn upon reconsideration.

In light of the foregoing remarks, it is believed that all of the presently pending claims are in a condition for allowance. Allowance of the application is respectfully requested. In the event the Examiner deems personal contact desirable in disposition of this application, the Examiner is respectfully requested to call the undersigned attorney at (603) 668-6560.

No fees are believed to be due. In the event there are any fee deficiencies, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,



Donald J. Perreault, Attorney For Applicants
Registration No. 40,126
GROSSMAN, TUCKER, PERREAULT
& PFLEGER, PLLC
55 South Commercial Street
Manchester, NH 03101
Ph: 603-668-6560
Fx: 603-668-2970